

# **OIL ANALYSIS REPORT**

## SYNOIL 8K PLUS QUINCY QSI 245 95211A - ZINGA INDUSTRIES Component

Compressor

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

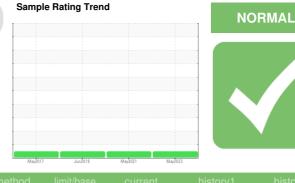
All component wear rates are normal.

#### Contamination

Moderate concentration of visible dirt/debris present in the oil.

#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



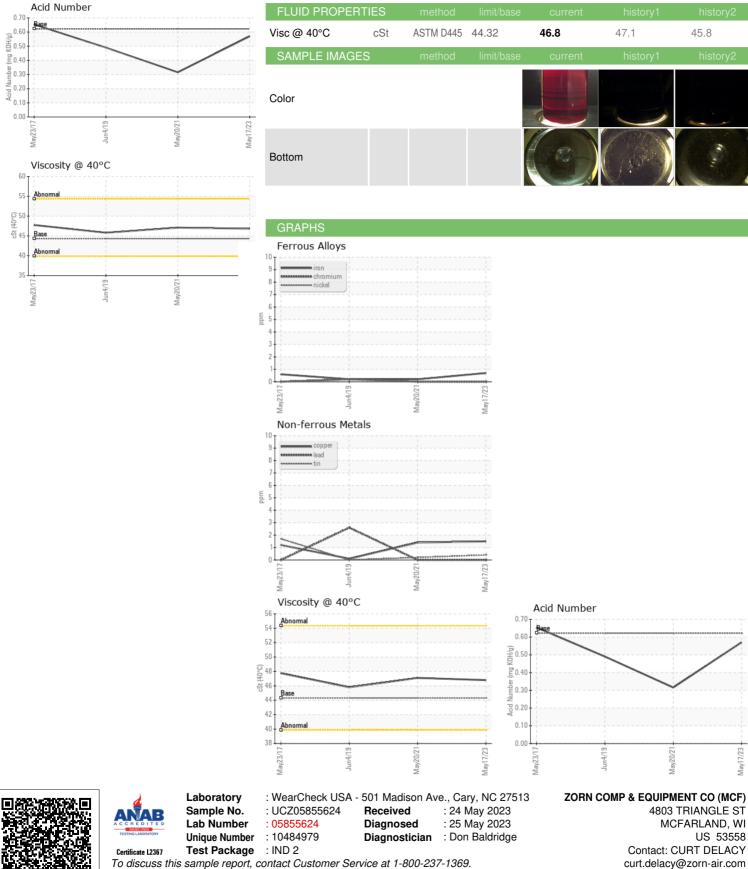


|  |  |  |  | May2021 Ma   | y2023  |  |
|--|--|--|--|--|--|--|
| SAMPLE INFORM  | IATION   | method   | limit/base   | current  | history1   | history2   |
| Sample Number  |  | Client Info  |  | UCZ05855624  | UCZ05270577  | UCZ04727963  |
| Sample Date  |  | Client Info  |  | 17 May 2023  | 20 May 2021  | 04 Jun 2019  |
| Machine Age  | hrs  | Client Info  |  | 76131  | 75263  | 73583  |
| Oil Age  | hrs  | Client Info  |  | 3080   | 2800   | 1000   |
| Oil Changed  |  | Client Info  |  | N/A  | Not Changd   | N/A  |
| Sample Status  |  |  |  | NORMAL   | NORMAL   | NORMAL   |
| WEAR METALS  |  | method   | limit/base   | current  | history1   | history2   |
| Iron   | ppm  | ASTM D5185m  | >50  | <1   | <1   | <1   |
| Chromium   | ppm  | ASTM D5185m  | >5   | 0  | 0  | <1   |
| Nickel   | ppm  | ASTM D5185m  |  | 0  | 0  | <1   |
| Titanium   | ppm  | ASTM D5185m  |  | 0  | 0  | 0  |
| Silver   | ppm  | ASTM D5185m  |  | 0  | <1   | <1   |
| Aluminum   | ppm  | ASTM D5185m  | >15  | 0  | 2  | 0  |
| Lead   | ppm  | ASTM D5185m  | >65  | 0  | 0  | 3  |
| Copper   | ppm  | ASTM D5185m  | >65  | 2  | 1  | <1   |
| Tin  | ppm  | ASTM D5185m  | >10  | <1   | <1   | 0  |
| Antimony   | ppm  | ASTM D5185m  |  |  | 0  | <1   |
| Vanadium   | ppm  | ASTM D5185m  |  | 0  | 0  | 0  |
| Cadmium  | ppm  | ASTM D5185m  |  | 0  | 0  | <1   |
| ADDITIVES  |  | method   | limit/base   | current  | history1   | history2   |
|  |  |  |  |  | -  |  |
| Boron  | ppm  | ASTM D5185m  | 0.3  | 0  | 3  | 3  |
| Boron<br>Barium  | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m   | 0.3<br>0.3   | 0  | 3<br>0   | 3<br>0   |
| Barium   |  |  |  | -  |  |  |
| Barium<br>Molybdenum   | ppm  | ASTM D5185m  | 0.3  | 0  | 0  | 0  |
| Barium<br>Molybdenum<br>Manganese  | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m   | 0.3<br>0   | 0  | 0  | 0<br>0   |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium   | ppm<br>ppm<br>ppm  | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 0.3<br>0<br>0.9  | 0<br>0<br><1   | 0<br>0<br><1   | 0<br>0<br>2  |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium  | ppm<br>ppm<br>ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 0.3<br>0<br>0.9<br>0.2   | 0<br>0<br><1<br>0  | 0<br>0<br><1<br><1   | 0<br>0<br>2<br><1  |
| Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus  | ppm<br>ppm<br>ppm<br>ppm<br>ppm                                    | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 0.3<br>0<br>0.9<br>0.2<br>0.1  | 0<br>0<br><1<br>0<br>0   | 0<br>0<br><1<br><1<br>0  | 0<br>0<br>2<br><1<br>0   |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm                                    | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 0.3<br>0<br>0.9<br>0.2<br>0.1<br>429   | 0<br>0<br><1<br>0<br>0<br>469  | 0<br>0<br><1<br><1<br>0<br>356   | 0<br>0<br>2<br><1<br>0<br>395  |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 0.3<br>0<br>0.9<br>0.2<br>0.1<br>429<br>0.3  | 0<br>0<br><1<br>0<br>0<br>469<br>6   | 0<br>0<br><1<br><1<br>0<br>356<br>55   | 0<br>0<br>2<br><1<br>0<br>395<br>10  |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 0.3<br>0<br>0.9<br>0.2<br>0.1<br>429<br>0.3<br>1336<br><b>limit/base</b>               | 0<br>0<br><1<br>0<br>0<br>469<br>6<br>769  | 0<br>0<br><1<br><1<br>0<br>356<br>55<br>459  | 0<br>0<br>2<br><1<br>0<br>395<br>10<br>494   |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 0.3<br>0<br>0.9<br>0.2<br>0.1<br>429<br>0.3<br>1336<br><b>limit/base</b>               | 0<br>0<br><1<br>0<br>0<br>469<br>6<br>769<br>current                                     | 0<br>0<br><1<br><1<br>0<br>356<br>55<br>459<br>history1                              | 0<br>0<br>2<br><1<br>0<br>395<br>10<br>494<br>history2                               |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 0.3<br>0<br>0.9<br>0.2<br>0.1<br>429<br>0.3<br>1336<br><b>limit/base</b>               | 0<br>0<br><1<br>0<br>0<br>469<br>6<br>769<br>current<br>3                                | 0<br>0<br><1<br><1<br>0<br>356<br>55<br>459<br>history1<br>11                        | 0<br>0<br>2<br><1<br>0<br>395<br>10<br>494<br>history2<br>4                          |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium                               | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br><b>method</b><br>ASTM D5185m  | 0.3<br>0<br>0.9<br>0.2<br>0.1<br>429<br>0.3<br>1336<br>limit/base<br>>35               | 0<br>0<br><1<br>0<br>0<br>469<br>6<br>769<br><u>current</u><br>3<br>0                    | 0<br>0<br><1<br><1<br>0<br>356<br>55<br>459<br>history1<br>11<br>2                   | 0<br>0<br>2<br><1<br>0<br>395<br>10<br>494<br>history2<br>4<br>5                     |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium                  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | ASTM D5185m<br>ASTM D5185m                | 0.3<br>0<br>0.9<br>0.2<br>0.1<br>429<br>0.3<br>1336<br>limit/base<br>>35<br>>20        | 0<br>0<br><1<br>0<br>0<br>469<br>6<br>769<br><u>current</u><br>3<br>0<br>0               | 0<br>0<br><1<br><1<br>0<br>356<br>55<br>459<br>history1<br>11<br>2<br><1             | 0<br>0<br>2<br><1<br>0<br>395<br>10<br>494<br>history2<br>4<br>5<br>4                |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>FLUID DEGRADA | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m | 0.3<br>0<br>0.9<br>0.2<br>0.1<br>429<br>0.3<br>1336<br>Iimit/base<br>>20<br>Iimit/base | 0<br>0<br><1<br>0<br>0<br>469<br>6<br>769<br>current<br>3<br>0<br>0<br>0<br>0<br>current | 0<br>0<br><1<br><1<br>0<br>356<br>55<br>459<br>history1<br>11<br>2<br><1<br>history1 | 0<br>0<br>2<br><1<br>0<br>395<br>10<br>494<br>history2<br>4<br>5<br>4<br>4<br>5<br>4 |

| VISUAL           |        | method  | limit/base | current | history1   | history2   |
|------------------|--------|---------|------------|---------|------------|------------|
| White Metal      | scalar | *Visual | NONE       | LIGHT   | MODER      | NONE       |
| Yellow Metal     | scalar | *Visual | NONE       | NONE    | NONE       | NONE       |
| Precipitate      | scalar | *Visual | NONE       | NONE    | NONE       | NONE       |
| Silt             | scalar | *Visual | NONE       | NONE    | NONE       | NONE       |
| Debris           | scalar | *Visual | NONE       | MODER   | MODER      | NONE       |
| Sand/Dirt        | scalar | *Visual | NONE       | NONE    | NONE       | NONE       |
| Appearance       | scalar | *Visual | NORML      | NORML   | NORML      | NORML      |
| Odor             | scalar | *Visual | NORML      | NORML   | NORML      | NORML      |
| Emulsified Water | scalar | *Visual | >0.1       | NEG     | NEG        | NEG        |
| 0 Free Water     | scalar | *Visual | 1          | NEG     | CUREDELACY | - UNEGRMCF |



# **OIL ANALYSIS REPORT**



\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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